

**REMARKS/ARGUMENTS**

This Amendment is responsive to the Office Action mailed on January 10, 2007. A petition for a 3 month extension of time is attached.

Before addressing the rejections of record, Applicants would like to respectfully point out a discrepancy in the Office Action. The Examiner has indicated on the Office Action Summary sheet that the pending Office Action is non-final. However, in the Conclusion, the Examiner notes that the pending Office Action is made final. (See Office Action page 18, section 14.) To clarify this discrepancy, Applicants have confirmed the non-final status of the Office Action on the PAIR system and will be moving forward under the assumption that the pending Office Action is non-final.

In this Amendment, claims 15 and 27-49 are pending. Claims 15 and 36 have been amended to correct typographical oversights. Claims 48-51 have been added. Support for the new and amended claims can be found in the specification. No new matter has been added.

**I. Claims rejections - 35 USC § 112**

At page 3 of the Office Action, claims 15 and 27-47 are rejected as failing to comply with the written description requirement of 35 U.S.C. 112, first paragraph. This rejection is traversed.

Claim 15, upon which claims 27-35 and 47-51 are dependent, has been amended and now recites, "wherein the first end inserted into the first slot region and the second end inserted into the second slot region each have a constant diameter." Similarly, claim 36, on which claims 37-46 and 52-55 are dependent, has been amended and now recites, "[a] duct comprising a first end section, wherein the first end section of the duct is inserted into the slot region, and wherein the first end section has a constant diameter." Support for these amendments can be found in the drawings as originally filed. According to MPEP 2163, in considering whether there is 35 U.S.C. 112, first paragraph support for the claim limitation, the examiner must consider not only the original disclosure contained in the summary and detailed description

of the invention portions of the specification, but also the drawings. See *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997); *Vas-Cath Inc. v. Mahurkar*, 935 F.2d at 1564, 19 USPQ2d at 1117-18 (Fed. Cir. 1991), (“drawings alone may provide a ‘written description’ of an invention as required by Sec. 112”); *In re Wolfensperger*, 302 F.2d 950, 955-57, 133 USPQ 537, 541-43 (CCPA 1962) (the drawings of applicant’s specification provided sufficient written descriptive support for the claim limitation at issue). Specifically, FIG. 1 in the present application shows an example of constant diameter duct ends. As such, presently amended claims 15 and 36 are supported by the present application as originally filed.

Additionally, with regard to claims 34 and 44, the Examiner states the limitation “the slip collar is free of metal” is a negative limitation that does not have support in the original disclosure.

Applicants respectfully disagree. On page 4, line 31 to page 5, line 5, of the present application recites:

“[f]iber reinforced plastic slip collars are desirable, since they are more universally adaptable to different chemicals than metal slip collars. For example, a metal slip collar may corrode when exposed to certain acids, whereas a plastic slip collar may not corrode as easily when exposed to the same acids. Also, ducts made from fiber-reinforced plastic materials are used in the semiconductor and other industries, and the slip collars according to embodiments of the invention are compatible with those fiber-reinforced plastic ducts.”

Thus, the present application discloses that it is desirable to have a slip collar free of metal. Furthermore, Applicants must respectfully disagree with the Examiner’s statement on page 4, second paragraph of the pending Office Action that “even slip collars described in the specification formed of fiber reinforced plastic contain screws, which are made of metal.” As explained at paragraph [0032] in the application, screws secure a slip collar to duct portions, and need not form part of the slip collar itself.

For at least these reasons the rejection of claims 15 and 27-47 under 35 U.S.C. § 112, first paragraph, should be withdrawn.

**II. Rejections based on Williams et al. under 35 U.S.C §103(a)**

Claims 15, 27-37, 39, 41-44 and 46-47 are rejected as obvious over Williams et al. (United States patent number 5,961,154) in view of Shea (United States patent number 5,383,994). Claim 38 is rejected as obvious over Williams et al. in view of Shea, and in further view of Shea et al. (United States patent number 5,505,497). Claim 40 is rejected as obvious over Williams et al. in view of Shea, and in further view of Nishio (United States patent number 6,045,164).

The Examiner also states that claim 44 is obvious over Williams et al. in view of Shea, and in further view of Narukawa (United States patent number 4,433,020). However, Applicants respectfully submit that based on the content of this last rejection the Examiner is actually referring to claim 45, and Applicants will respond assuming that the rejection on page 13, section 11 of the pending Office Action refers to claim 45, and not claim 44. Each of the rejections based on Williams et al. is traversed.

**A. *Neither Williams et al., nor the secondary cited references, teach or suggest "an integral one-piece structure" slip collar.***

Applicants have considered the Examiner's arguments and resubmit that Williams et al. does not teach or suggest a slip collar that is a "one-piece, integral structure." The Examiner has reiterated his position from previous Office Actions that Williams et al. and the secondary references do teach or suggest a duct assembly including a one piece integral slip collar. Applicants respectfully submit that by the Examiner's own definition of "integral" in the pending Office Action, the Examiner's allegation is incorrect. On page 14 of the pending Office Action, the Examiner states:

The definition of integral is "elements formed as a single unit." The slip collar of Williams as an element of a duct assembly is an integral product, because it is formed as single unit after the adhesive bonds the different elements of the duct assembly together. In the same manner, "one-piece structure" requires that

the article be formed as one-piece and not separable into individual components. The slip collar as an element of a duct assembly, is one-piece, it cannot be divided into pieces without destroying collar. Whether the slip collar prior to being part of the claimed duct assembly was more than one-piece is not germane to the issue of whether the claimed duct assembly is patentable, absent evidence showing that the specific intermediate article or method steps of producing the claimed duct assembly forms an unobvious difference between the final product of the claimed duct and the prior art duct assembly. (Emphasis added.)

By the Examiner's own definition of "integral" and "one-piece structure", the argument that "[t]he slip collar of Williams as an element of a duct assembly is an integral product, because it is formed as single unit after [bonding]" is illogical. Applicants submit that the descriptive phrase "is an integral, one-piece structure" refers to the slip collar element of the duct assembly before the assembly is formed.

Furthermore, whether the slip collar, prior to being part of the claimed duct assembly, is more than one-piece is germane to the issue of whether the claimed duct assembly is patentable. According to MPEP 2114, a prior art device can perform all the functions of the apparatus claim and still not anticipate the claim. Even if the duct assembly in the cited references did perform all the functions of the assembly as claimed, the cited references cannot anticipate the claim if there is any structural difference. *In re Ruskin*, 347 F.2d 843, 146 USPQ 211 (CCPA 1965) as implicitly modified by *In re Donaldson*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994). See also *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1951 (Fed. Cir. 1999). As noted in responses to previous Office Actions, the fact that the slip collar is a one-piece, integral structure provides for many structural advantages and provides a final structure distinguishable from structures disclosed in the cited references. This position was further supported by the previously submitted Declaration of Joseph Plecnik pursuant to 37 C.F.R. § 1.132 ("the Plecnik Declaration").

The Plecnik Declaration points out the structural differences as follows:

The Resulting duct joint that is formed when using the slip collar described in the present application is stronger than the duct joint that is formed in Williams et al. Duct joints are often the weakest

point of any duct system, and it is desirable to make sure that these weak points are as strong as possible. The duct joint described in Williams et al. has multiple parts including an inner slip collar 60 and outer claim portion which are joined by bolts 50 and adhesive layers. The regions where these multiple parts are joined can potentially fail. In comparison, the slip collar that is described in the present application is a one-piece structure and does not have joining regions like those described in Williams et al. I believe that the slip collar that is described in the present application is stronger and is less prone to failure than the duct joint described in Williams et al. (See Plecnik Declaration, page 3, section 7, emphasis added).

The evidence of structural differences provided in the Plecnik Declaration prove that the specific intermediate articles producing the claimed duct assembly are unobvious differences between the claimed duct assembly and the duct assembly of the cited references, and therefore are germane to the issue of patentability. The fact that the claimed duct assembly does not have weak joining regions where multiple parts are joined as described in Williams et al., is a direct result of the slip collar being a one-piece, integral structure before construction of the duct assembly. Thus, the one-piece, integral slip collar used in the claimed assembly is an element that is structurally different from any element of the duct assembly in Williams et al. Thus, Williams et al., nor the secondary cited references, separately or combined, do not teach or suggest, and therefore do not anticipate nor render obvious the claimed duct assembly. For at least these reasons, claims 15 and 36, and all claims dependent thereon, should be allowed.

In addition, embodiments of the claimed invention provide for non-obvious structural differences from and economic advantages over the duct assembly of Williams et al. In support, Applicants are submitting herewith the Declaration of Jeff Shea as to the commercial success of product embodiments of the claimed invention pursuant to 37 C.F.R. § 1.132 ("the Shea Declaration").

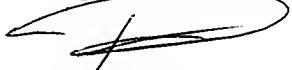
As evidenced by the Shea Declaration, the inventive features, as claimed in the present patent application, are responsible for the commercial success of the H-Collar™ line of joint products, which are embodiments of the invention. Commercial success of products falling within the claims of the patent that flow from the functions and advantages disclosed or inherent

in the description in the specification is pertinent to the issue of non-obviousness. *In re Vamco Machine & Tool, Inc.*, 752 F.2d 1564, 224 USPQ 617 (Fed. Cir. 1985). Here it is clear that the commercial success is due to the many structural and economic advantages of the claimed invention. As such, the claimed invention which includes an "integral, one-piece" slip collar is non-obvious over Williams et al. in view of the other secondary cited references. Accordingly, in view of Applicants' amendments and remarks and the Shea Declaration, Applicants believe that the present claims are patentable and should be allowed.

**CONCLUSION**

Applicants believe all claims now pending in this Application are in condition for allowance. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



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